

FERROELECTRIC WRITE ONCE READ ONLY MEMORY FOR ARCHIVAL STORAGE

Abstract of the Disclosure

5 Structures and methods for ferroelectric write once read only memory adapted to be programmed for long retention archival storage are provided. The write once read only memory cell includes a charge amplifier transistor. The transistor includes a source region, a drain region, and a channel region located between the source and the drain regions. A gate stack is located above the channel
10 region. The gate stack includes; a gate oxide layer, a polysilicon interconnect on the gate oxide, a ferroelectric dielectric coupled to the polysilicon interconnect, and a control electrode coupled to the ferroelectric dielectric. A plug couples the source region to an array plate. A transmission line is coupled to the drain region.